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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,626	10/05/2001	Toyoharu Oohata	09792909-5236	4383

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EXAMINER

NGUYEN, DONGHAI D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 01/07/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,626

Applicant(s)

OOHATA, TOYOHARU *CH*

Examiner

Donghai D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10 & 13 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The proposed reply filed on November 11, 2003 has been entered as Paper No. 11.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 and 11-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "separating ... elements" (claim 1, lines 3-4) is vague and indefinite since it is unclear as to the devices are the same or different from the elements.

The phrase "film-like" (claim 5, lines 3 and 5) renders the claim vague and indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "film-like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

The phrases "a second period", "a value", and "a multiple" (claim 2, line 3) is vague and indefinite since it is unclear that these limitation are the same or different from the recited limitations in claim 1.

The phrase "the individually separated elements" (claims 11, line 5; claims 13 and 15, line 4) lacks antecedent basis.

4. Claims 11-17 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP

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§ 2172.01. The omitted steps are: mounting the elements to the mounting board at a second period since the claimed invention is mounting elements.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 4, 7-12, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by JP application number 1979-91683 Tetsuo et al.

Regarding claims 1, 10, 11, and 15, Tetsuo et al. a method for mounting a plurality of elements comprising: separating a plurality of devices (25/35), which have been arrayed at a first period on a substrate (20/30), into individual elements while keeping the first period as it is (Figs. 2a/3b) wherein more than one but not all of the elements in a given row are separated from the substrate (Fig. 3b); handling the individual separated elements so as to re-array the elements at a second period having a value equivalent to a multiple of the first period (Figs. 2/3); and transferring the re-arrayed elements on a mounting board (21/31), wherein the elements are mounted to the mounting board at a period equivalent to the second period (Figs. 2b/3e).

Regarding claims 2 and 4, Tetsuo et al disclose the multiple is an integer; said transferring comprising transferring the selected elements are transferred on the entire surface of the mounting board by repeating said discrete selecting of elements and said transferring of the selected elements (see Fig. 2 and 3 series).

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Regarding claims 7-9, 12, and 17, Tetsuo et al disclose the separating is carried out by separating a plurality of elements in such manner the elements are two-dimensionally arrayed at a first period in the longitudinal and lateral directions; and said handling is carried out by one-dimensionally re-arraying the elements in one of the longitudinal and lateral direction, and then one-dimensionally re-arraying the elements in the other of the longitudinal and lateral directions (inherence because Tetsuo et al produce display device by re-array LEDs).

7. Claims 10 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,206,749 to Zavracky et al.

Regarding claim 10, 13, and 15-16, Zavracky et al disclose a method for mounting a plurality of elements, comprising: separating a plurality of elements (304) arrayed on a substrate from the substrate (302), wherein the elements have been arrayed on the substrate at a first period; handling an individually separated elements so as to re-array the elements separated from the substrate at a second period equivalent to a multiple of the first period, wherein the multiple is an integer greater than one (Figs. 13B/ 13C); and transferring the re-arrayed elements on a mounting board (Col. 15, lines 5-8).

Regarding claims 14 and 17, see Col. 2, lines 23-25.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tetsuo et al in view of Zavracky et al.

Tetsuo et al disclose all the claimed limitation except, the substrate by irradiating the selected elements with an energy beam emitted from the back surface of the substrate however Zavracky et al teach the step of irradiating the selected elements with an energy beam emitted from the back surface of the substrate (Figs. 12) for releasing the elements from the substrate (Col. 14, lines 7-10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tetsuo et al to irradiating the selected elements with an energy beam emitted from the back surface of the substrate as taught by Zavracky et al for releasing the elements from the substrate.

Allowable Subject Matter

10. Claims 5-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (703) 305-7859. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

DN



PETER VO
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